

## Introduction to North American Raptor Conservation Species Assessments

We provide species assessments based on trend analyses through 2019 from 76 raptor migration count sites across North America spanning from Canada to Panama. Synthesis of trends at the continental and regional scales can highlight species and/or regions that warrant a closer look in the case of widespread declines or highlight conservation successes in the case of widespread increases. It is important to note that the intent of long-term monitoring efforts like RPI is to identify changes overtime, not necessarily to explain them—that is where focused research efforts come into play. RPI shines a light on species and places in need of closer looks and focused efforts.

In these assessments, we provide a summary of the continental and regional migration count trends for each species and highlight species of concern. For complete and/or long-distance migrants such as Osprey, Broad-winged Hawk, Swainson’s Hawk, and Mississippi Kite, where essentially the entire population migrates out of its breeding range to a separate wintering range, the migration count trends provide a reliable assessment of actual population trends. For partial and short-distance migrants such as the Red-tailed Hawk, there is evidence that some species may be shifting their migratory behavior and/or wintering ranges in response to climate change and other factors (Bolgiano, 2013; Paprocki, et al, 2017).

Another factor to consider in viewing the trends is that some species (e.g., Golden Eagle, Peregrine Falcon) have resident populations that may not be well-represented in the migration count data. Therefore, considering results from multiple datasets, including the Christmas Bird Count (CBC, <https://netapp.audubon.org/cbcobservation/>) and Breeding Bird Survey (BBS, <https://www.pwrc.usgs.gov/bbs/results/>), can provide a more complete picture of the population status of many raptor species. In these assessments, we also briefly examine CBC trends, especially where those data inform the findings from the migration count results. The results discussed here derive from [www.audubon.org](http://www.audubon.org) and were published in Soykan, C.U., Sauer, J., Schuetz, J.G., LeBaron, G.S., Dale, K., and Langham, G.M. 2016. *Population trends for North American winter birds based on hierarchical models. Ecosphere, 7(5)*.

### Mississippi Kite (*Ictinia mississippiensis*)

The 10-year migration count trends for Mississippi Kites suggest stable populations across its range in the East and Gulf Regions with 88% of 8 total sites showing stable counts during this span. There were no increases observed at these count sites (see pie charts and trend maps below). The 20-year count trends (not shown) imply a stable and increasing population in the Gulf Region (Gulf Region: 2 stable, 3 increase). The Mississippi Kite overwinters in South America, so it is not detected during Christmas Bird Counts in the winter, however, the USGS Breeding Bird Survey data suggest an increase in nesting populations during the last two decades. The species is currently listed globally as a species of least concern by the IUCN Red List. It is listed as endangered in Tennessee, Illinois, New Mexico, and listed as threatened in Arizona. They appear to be increasing their northward range in

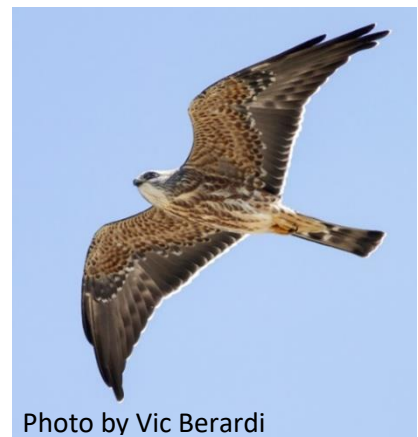


Photo by Vic Berardi

some Eastern states. Mississippi Kites are vulnerable to deforestation and the removal of nesting trees. Removal and fragmentation of mature hardwood forest can threaten Eastern populations. The increase in breeding population is likely due to the ability of this species to readily colonize suburban areas and nest in urban environments, as observed in the Great Plains. As a result, human-raptor conflict due to diving has been recorded as a significant wildlife nuisance in Kansas, New Mexico, Oklahoma, and Texas, but steps have been taken to mitigate negative interaction through education and outreach.

